

**DeSoto County Schools**  
**Biology I**  
**2021-2022 Pacing Guide (Block)**  
**Fall Semester**

<b>Unit</b>	<b>Days</b>	<b>Comp/ Obj</b>	<b>Major topics/concepts</b>
<b>Introduction</b>	2	-	Intro to Course Lab Safety Scientific Method Policies and Procedures
<b>Characteristics of Life</b>	3	1A	Biotic/abiotic Cell theory Levels of organization Evidence for virus- Living/non-living
<b>Macromolecules/ Biochemistry</b>	5	1B	Organic compounds (structure and function) Metabolism Enzymes
<b>Cells</b>	7	1C, 1D	Cells (organelles structure and function) Prokaryotic/eukaryotic Plant/animal/fungi Virus reproduction Cell membrane Active/passive transport osmosis, diffusion, hypo-, hyper-, isotonic
<b>Photosynthesis/ Cellular Respiration</b>	5	2	ATP structure and function Photosynthesis equation (More in-depth) Cellular respiration Anaerobic/aerobic Computer Simulations with real work examples
<b>Cell Growth and Division</b>	4	1E	Cell cycle, Mitosis Cell differentiation, cancer, stem cells
<b>September 30 – October 7</b>			<b>Case 21 Benchmark Window (covering all previously listed material)</b>
<b>Cell Growth and Division</b>	5	3A.1, 3A.2	Meiosis Compare Mitosis/Meiosis Asexual reproduction Karyotypes Nondisjunction
<b>Genetics</b>	5	3A.3, 3B	Chromosomal abnormalities Mendel's Laws Punnett Squares Incomplete/codominance Multiple Alleles Sex linked traits

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			Pedigrees
<b>DNA and RNA</b>	6	3C	DNA/RNA structure Replication Transcription Translation Mutations Types of RNA  <div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 3em; margin-right: 10px;">{</div> <div style="text-align: center;">           Cloning            Transgenic            DNA technology            Stem cell research            Gel Electrophoresis         </div> <div style="font-size: 3em; margin-left: 10px;">}</div> </div> 1 Day
<b>Evolution</b>	5	4	Organic Chemical evolution Evidence for evolution Anatomy Fossil record Molecular/biochemical (gene and protein homology) Biogeographic distribution Cladograms/phylogenetic trees Adaptations Genetic variation Natural selection Speciation
<b>Ecology</b>	4	5	Levels of organization Cycles of matter Greenhouse gases Food chain, web, pyramid Symbiosis Predation/Prey Cooperation Mimicry Density independent/dependent Logistic/exponential growth Succession

\*Aligned to MS CCRS 2018

\*Revised 11/3/20